

## Lecture Schedule MCB130 Spring 2019

1.	Jan 23 (W)	GB1	Intro to Cell and Systems Biology
2.	Jan 25 (F)	MR1	Principles of cell cycle control
3.	Jan 28 (M)	MR2	Entry into mitosis
4.	Jan 30 (W)	MR3	Mitotic exit
5.	Feb 1 (F)	MR4	Biochemical oscillators
6.	Feb 4 (M)	MR5	Cell cycle checkpoints
7.	Feb 6 (W)	MR6	Cell cycle arrest in checkpoint signaling
8.	Feb 8 (F)	MR7	Spatial control of cell division
9.	Feb 11 (M)	MR8	Spatial control II
10.	Feb 13 (W)	MR9	Review
11.	Feb 15 (F)	GB2	Components of a cell
	Feb 18 (M)	Holiday	-----
12.	Feb 20 (W)	GB3	Systems cell biology: Significance of cell-to-cell variability
	Feb 22 (F)	Midterm 1	
13.	Feb 25 (M)	GB4	Synthesis and degradation in information flow
14.	Feb 27 (W)	GB5	Measuring information flux and physical interactions
15.	Mar 1 (F)	GB6	Measuring information flux and physical interactions (II)
16.	Mar 4 (M)	MR10	Quantitative signaling
17.	Mar 6 (W)	MR11	Morphogen signaling
18.	Mar 8 (F)	MR12	Transcription-dependent cell fate
19.	Mar 11 (M)	MR13	Autoregulatory feedback loops in transcription to define cell states
20.	Mar 13 (W)	GB7	Receptor-ligand interactions and signaling
21.	Mar 15 (F)	GB8	Receptor-ligand interactions and signaling (II)
22.	Mar 18 (M)	GB9	Properties of membranes and protein transport across membranes
23.	Mar 20 (W)	GB10	Cellular sorting I: the nuclear pore
24.	Mar 22 (F)	GB11	Cellular sorting II: the secretory pathway
	Mar 25 (M)	Spring Break	
	Mar 27 (W)		
	Mar 29 (F)		
25.	Apr 1 (M)	GB12	Review
	Apr 3 (W)	Midterm 2	
26.	Apr 5 (F)	DD1	Dynamic nature of cellular processes
27.	Apr 8 (M)	DD2	Imaging cell structure and dynamics: cellular length scales
28.	Apr 10 (W)	DD3	Dynamic structure of the microtubule cytoskeleton

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| 29. | Apr 12 (F) | DD4  | Microtubule motors   |
| 30. | Apr 15 (M) | DD5  | Chromosome structure and dynamics  |
| 31. | Apr 17 (W) | DD6  | Mechanics of mitotic chromosome segregation 1                            |
| 32. | Apr 19 (F) | DD7  | Mechanics of mitotic chromosome segregation 2                            |
| 33. | Apr 22 (M) | DD8  | Dynamic structure of the actin cytoskeleton                              |
| 34. | Apr 24 (W) | DD9  | Myosin ATPase cycle, single molecule studies and muscle contraction      |
| 35. | Apr 26 (F) | DD10 | Cell motility: Brownian ratchets and myosin motors                       |
| 36. | Apr 29 (M) | DD11 | Cell behavior: Signaling control of cell adhesion, motility and polarity |
| 37. | May 1 (W)  | DD12 | Cell death   |
| 38. | May 3 (F)  | DD13 | Review   |
|     | May 6-10   |      | RRR week   |
|     | May 14,    |      | Final Exam   |
|     | 7-10pm     |      |  |